SEATTLE PUBLIC UTILITIES AND ITS WHOLESALE PURVEYORS 1999 WATER CONSERVATION SURVEY

Final Report

Prepared for:
Seattle Public Utilities and Its Wholesale Purveyors

Prepared by:
Linda Dethman
DETHMAN & TANGORA LLC
1719 Bigelow Ave. N.
Seattle, WA 98109

April 2000

SEATTLE PUBLIC UTILITIES AND ITS WHOLESALE PURVEYORS 1999 WATER CONSERVATION SURVEY

Final Report April 2000

Table of Contents

EXECUTIVE SUMMARY	i
Study Purposes	i
Methods	
Key Findings	
Demographics and Household Characteristics	
Attitudes About Water Conservation	
Motivations to Save Water	
Water Conservation Knowledge and Behaviors	
Summary of Changes in Attitudes and Behaviors Since 1994	
Customer Information Sources	
Profiles of Key Customer Segments	
Conclusions and recommendations	
CHAPTER ONE – BACKGROUND, METHODS, AND DEMOGRAPHICS	1
Study Background and Purposes	1
Study Methods	1
Approach	1
Comparisons With Prior Survey Data	2
Table and Figure Notes	
Demographic and Household Characteristics	3
Summary	
· · · · · · · · · · · · · · · · · · ·	

CHAPTER TWO – BASIC VIEWS ABOUT WATER AND ENVIRONMENTAL ISSUES	6
Q1: How concerned are you that your community may face major water supply problems over the next five years?	,
Q2: Why do you give that rating?	
Q3: Do you believe the actions of individual households like yours can greatly affect whether we have enough water to meet the future demands of our region somewhat affect whether we have enough water, or have little effect on whethe we have enough water?	, r
Q4: How important is it for your household to actively conserve water?	9
Q5: How much more could you realistically do to save water in your home?1	1
Q6: If you knew that the same rivers that salmon depend on for survival also supply your water, and that if all households saved water we would have enough water for salmon and people, how likely would you be to take steps to save water at home?	2
Q7. If you knew you could save 5-10% on your water and sewer bills by cost-effectively saving water, how likely would you be to take steps to save water at home?	2
Q8. Our region may be able to delay the development of new and more costly water supplies if every household reduced the amount of water it uses by 1% each year for 10 years. Knowing this, how likely would you be to take steps to save water at home?	2
Q9. If you knew that it would help protect the environment for now and future generations, how likely would you be to take steps to save water at home?1	2
Q10. Which is the single most important reason you would take steps to save water? 1) Saving water for salmon. 2) Saving water to save money on your bill. 3) Saving water to delay new, more costly water supplies. OR 4) Saving water to help protect the environment?	
CHAPTER THREE – INDOOR WATER USE1	6
Largest Uses1	6
Q11. Inside their homes, people mostly use water to wash their clothes, take baths and showers, and flush toilets. Of these three ways to use water, which two do you think are the largest uses in your home?1	6
Showerheads and Showers1	8
Q12: In 1992, your household should have received a low-flow showerhead from your water utility. Was this showerhead installed in your home?1	8

Q13: Is it still there, did you put your old showerhead back in, or did you replace it with a new showerhead at a later date?18
Q14: Have you installed a new showerhead in your home since 1993?18
Q15: Do most showers in your household last 5 minutes or less, or do they last more than five minutes?19
Toilets20
Q16. Do you usually flush the toilet with every use, or do you often allow two or more uses before flushing?20
Q17. How many toilets do you have in your home?20
Q18. In the past year, have you checked any of your toilets for leaks?20
Q19. How many toilets have you replaced or installed new in the past 7 years – that is, since 1993?24
Q20. How satisfied are you with the new toilet?24
Q21. Within the next two years, how likely will you be to replace any toilet in your home that is in good working order?24
Q22. Will you replace this toilet because you plan to remodel, because you'd like to save water, because you'd like to save money on your water and sewer bill, or for some other reason?
Q23. How likely would you be to spend about \$100 to replace a working toilet in your home with a new low-flow, 1.6 gallon per flush model, if you could recover your cost through lower water and sewer bills in less than 2 years?27
Washing Machines28
Q24: Have you ever heard of tumble action or horizontal-axis washing machines that are designed to save water and energy?28
CHAPTER FOUR – OUTDOOR WATER USE30
Incidence of Yards and Lawns30
Q25: Do you have a yard?30
Q26: Of the yard around your home that's planted with lawn and garden, how much of it is lawn?31
Lawn Care Preferences and Practices32
Q27: How important is it for you to have a green lawn as part of your landscaping?32
Q28: How willing would you be to have a natural lawn if a natural lawn is a lighter green color, has a few weeds, and is mowed a little higher than you're used to?

Lawn Watering35
Q29: About how often do you water your lawn during a typical summer?3
Use and Maintenance of Automatic Sprinkling Systems36
Q30: Do you use an automatic sprinkling system to water your lawn?36
Q31: During the watering season, do you adjust the automatic system so that it waters less when it's cooler and more when it's hotter?
Q32: Do you inspect your automatic system for leaks at least once a year?36
Lawn Care38
Do you
Q33. Usually mow your lawn with a mulching mower?38
Q34. Usually leave your grass clippings on your lawn?38
Q35. Usually use an organic or slow release fertilizer on your lawn?38
Q36. Usually use a "weed 'n' feed" type product on your lawn?38
Q37. Usually use pesticides to control crane flies?38
Q38. Usually aerate and over-seed your lawn?38
Lawn Removal and Replacement40
Q39: In the past five years, since 1994, have you removed any of your lawn? 40
Q40: Did you replace your lawn with garden areas with plants and shrubs, including rockeries, or something else like a patio, deck, or garage?40
Other Yard Care Practices4
Q41. Do you mostly maintain your own yard, mostly hire a professional yard service to maintain it, or do you do both?4
Q42. Do you use any low volume watering methods in your garden such as drip irrigation?42
Q43. Do you usually mulch your planting beds?42
Q44. Do you usually improve your soil with compost or other organic amendments?42
CHAPTER FIVE – COMMUNICATING ABOUT WATER RESOURCE ISSUES 44
Q45: Where would you most likely get information about lawn and garden care?44
Q46: Where would you most likely get information about appliances such as showerheads, toilets and washing machines?4

environmental issues such as restoring salmon runs, preventing pollution, a managing garbage?	
Q48: Which one of the following six words would you most like to see or head a message about how you could help to manage our resources: sustainable conservation; environmental; natural; naturally, and salmon friendly	e;
Q49: Please complete this sentence. "It's important for people in our area to manage our resources because	
CHAPTER SIX – PROFILES OF KEY CUSTOMER SEGMENTS	50
Attitudinal Segments	50
Importance Of Conserving	50
How Much More Water Can You Save?	51
Indoor Use Segments	51
Installing Low-Flow Showerheads	51
Toilets: Awareness Of Water Used In Flushing	52
Toilets: Multiple Uses Before Flushing, Checking For Leaks, Replacements	52
Toilets: Future Replacements	53
Outdoor Use Segments	55
General Yard and Garden Practices	55
Incidence And Size Of Lawn	56
Importance Of Having A Green Lawn	56
Frequency of Watering	57
Lawn Removal	58
Traditional and Environmentally Friendly Lawn Care Practices	58
Watering Practices	59
List of Tables	
Table 1 - Water Conservation Areas of Change and Stability	vi
Table 2 - Where Customers Go to Get Information	vii
Table 3 - Summary Table of Demographics (Q51-57)	4
Table 4 - Level of Concern About Water Supply Problems (Q1)	7
Table 5 - Reasons for Concern or Lack of Concern About Water Supply (O2)	7

Table 6 - How Conserving Can Affect The Water Supply (Q3)	g
Table 7 - Importance of Conserving (Q4)	10
Table 8 - Two Largest Uses of Water Indoors (Q11)	
Table 9 - Checked toilet for leaks? (Q18)	
Table 10 - Reasons to Replace Toilet in the Next Two Years (Q22)	27
Table 11 - Amount of Lawn in the Yard (Q26)	32
Table 12 - Importance of Green Lawn (Q27)	33
Table 13 - How Often Lawn is Watered (Q29)	36
Table 14 - Use of Automatic Watering Systems	37
Table 15 - Removed any Lawn? (Q39)	41
Table 16 - Most Important Reason To Conserve (Q 10) By Importance Of Conservation (Q4)	51
Table 17 - Toilet Replacement Under Various Conditions	54
Table 18 - Importance Of A Green Lawn (Q27) By Conservation Attitudes	56
Table 19 - Likelihood Of A Natural Lawn by (Q28) By Conservation Attitudes	57
Table 20 - Frequency of Watering by Income Levels	57
List of Figures	
Figure 1 - Single Most Important Reason To Save Water	
Figure 2 - Level of Concern About Water Supply Problems (Q1)	6
Figure 3 - How Much Individual Actions Can Affect Having Enough Water (Q3)	8
Figure 4 - Importance of Conserving Water (Q4)	10
Figure 5 - Doing More to Save Water in the Home (Q5)	11
Figure 6 - Reasons to Take Steps to Save Water (Q6-9)	13
Figure 7 - Single Most Important Reason to Save Water (Q10)	15
Figure 8 - Two Largest Uses of Water Indoors (Q11)	17
Figure 9 - Use of Low-flow Showerheads in Home (Q12-14)	18
Figure 10 - Length of Most Showers (Q15)	20
Figure 11 - How Often Toilet Is Flushed (Q16)	21
Figure 12 - Number of Toilets in the Home (Q17)	22
Figure 13 - Toilets Checked For Leaks (Q18)	23
Figure 14 - Number of Toilets Replaced Since 1993 (Q19)	24

Figure 15 - How Satisfied With New Toilet (Q20)	25
Figure 16 - Likelihood of Replacing Good Working Order Toilet (Q21)	26
Figure 17 - How Likely to Replace Toilet With Low-Flow Model (Q23)	28
Figure 18 - Knowledge of Water- and Energy-Saving Washing Machines (Q24)	29
Figure 19 - Respondents Who Have A Yard (Q25)	30
Figure 20 - Amount of Lawn Area in Yard (Q26)	31
Figure 21 - Importance of Having a Green Lawn (Q27)	33
Figure 22 - Likelihood of Having a Natural Lawn (Q28)	34
Figure 23 - How Often Lawn Is Watered During a Typical Summer (Q29)	35
Figure 24 - Use Of Automatic Sprinkler System (Q30 - Q32)	37
Figure 25 - Lawn Care Practices (Q33-38)	39
Figure 26 - Replacement of Lawn in the Yard (Q39-40)	40
Figure 27 - How Yard is Maintained (Q41)	41
Figure 28 - Use of Low-Volume Watering (Q42), Mulching (Q43), and Composting (Q44) Methods	_
Figure 29 - Information about Lawn and Garden Care (Q45)	45
Figure 30 - Information About Appliances (Q46)	46
Figure 31 - Information About Water Supply and Environmental Issues (Q47)	47
Figure 32 - "Message" Words Regarding Managing Resources (Q48)	48

Appendices

Appendix A: Questionnaire